



RURAL  
WORLD

# COLMAN'S RURAL WORLD

DEVOTED TO

AGRICULTURE

HORTICULTURE

HORSES

CATTLE

SHEEP

SWINE

ETC.

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## COLMAN'S RURAL WORLD

**NORMAN J. COLMAN, Editor.**  
Published every Wednesday, in Chemical building, corner of Eighth and Olive streets, St. Louis, Mo., at one dollar per year. Eastern office, Chalmers D. Colman, 430 Temple Court, New York City. Advertisers will find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

While the RURAL WORLD is published at one dollar a year, it has temporarily allowed old subscribers to send actually NEW OR TRIAL subscribers with their own subscriptions at fifty cents a year, in order to largely increase the circulation and influence of the paper. This price is less than the cost of the white paper, presswork, folding, wrapping, mailing and preparing the postage, saying nothing of any other of the large expenses of maintaining offices, paying salaries and conducting such a paper in a large city. Renewals, unless accompanied by one or more NEW subscribers must be at one dollar a year. All names are dropped as soon as subscriptions expire. The month named on the address tag, pasted on each issue, shows the month subscriptions expire, and renewals should be made two or three weeks before, so that names shall not drop out of list. It is gratifying to the proprietor to be able to state, in his half century's experience in conducting this paper, it has never enjoyed the patronage and prosperity it now does. Its circulation is increasing in a wonderful degree, and its advertising patrons, many of whom have used its columns for a quarter or a third of a century, are more than pleased with results. Let all our friends unite and press forward in extending its sphere of influence. It will do for others what it is doing for you, so get others to join the great RURAL WORLD army and receive the same benefit.

The St. Louis Fair will be held October 7-13, 1901. Because of a recent sale of the Fair Association property, it was assumed by some that the real estate was to be put on the market and that this marked the end of the fair—that none would be held this fall. We notice that our Missouri exchanges are so stating, and take occasion to announce that the fair will be held as usual.

Illinois farmers are deeply interested in House Bill No. 215, that is now before the Illinois General Assembly. The bill provides for the extension of the work of the Agricultural College and Experiment Station of the state.

It does not seem to be understood that in Illinois, as in Missouri, and some other states, the State Agricultural College and Experiment Station which came into existence through acts of the United States Government, are almost, if not wholly, dependent on the Government for income. It was not the expectation when these agricultural colleges and experiment stations were established, that the income from the land grant funds, and annual appropriations from the United States treasury were to be their only income; it was assumed, and properly, that the several states would supplement the Government appropriations and thus aid in developing the agricultural resources.

The Missouri Legislature, at the session recently held, recognized the obligation of the state to the State Agricultural College in providing buildings and equipment, and added to its working funds by appropriating money for the support of a Chair of Dairy Husbandry. The time is at hand when Illinois must also put some of her own money into agricultural college and experiment station work, and not leave this to be carried on entirely with funds provided by the United States Government. Our Illinois readers should lend their aid to those who are pushing House Bill No. 215 by writing to their representatives and senators and urge them to support the bill.

### RECOGNIZED VALUES OF A CORN CROP.

Of recent years much has been said and written derogatory of corn both as to its effect on land and regarding its feeding value. That it is one of our best carbonaceous foods and has a place in the animal feeding economy must not be ignored. But it is so easy to become extremists in either feeding all corn or condemning it in toto. Its true value should be understood as a feed, and then have its true place in the daily ration in the barn and feed lot.

While land in many sections has been in corn until corn will return such small yields that the farmer is forced to plant some other crop, yet our progressive farmers recognize the value of a crop of corn to the soil. The praises of clover have been

sounded so long and so loud that other crop values may be ignored.  
Mr. T. B. Terry has at institutes during recent years been laying great stress on fertility developed by cultivation, and surely a crop of corn would give such results.

Supt. O. C. Gregg of Minnesota has the following to say on this subject: "It is a well established fact that shading land contributes to its fertility. A plank or board laid upon the land and left there for a season will add to the fertility of the soil it covers. The summer fallow is opposed to this method of fertilization; it is also contrary to nature's method. We now understand that in the cultivation of corn there is not only value in the kernel and fodder, but also from the shade of the growing plant."

Corn is also a good crop to clean land of weeds if the cultivation is thorough. To secure this end the farmer must employ such implements as will most effectively destroy the weeds with the least expenditure of labor. Despite the fact that a crop of corn will enable one to clean a field of weeds, if rightly tilled, yet many corn fields are weed seed beds. As weeds use soil fertility and moisture which should go to the cultivated crop, farmers need to use methods and implements in the culture of a corn crop that will enable them to attain clean land. The knowledge of such methods and implements is preparation for a good corn crop the ensuing season, and as essential as is the securing of good seed corn. These will vary in sections and hence farmers must be governed by environment.

### AGRICULTURAL EDUCATION.

We have before us a printed copy of a paper by Dr. William Trelease, director of the Missouri Botanical Garden (Shaw's) Garden, St. Louis, read before the twenty-first annual meeting of the Society for the Promotion of Agricultural Science, on "The Botanical Garden as an Aid to Agriculture." Those among our readers who have had the good fortune to visit Shaw's Garden, as it is known in St. Louis, and admired the beautiful array of flowers, shrubs and trees, comprising one of the largest collections of plants in the world, will possibly ask, on noting the subject of Dr. Trelease's paper, how agriculture—the growing of corn, wheat, potatoes and other farm crops—would be aided by such an institution. What is agriculture? In answer let us quote the following from Dr. Trelease's paper:

"Not long since an enthusiast made the effort to introduce instruction in horticulture into the curriculum of the public schools of a western state. In due course of time his proposition came before a committee of the teachers' association of that state and in a masterly report this committee recommended that the subject be stated as agriculture, of which horticulture was held to be merely a branch, and that agriculture be taught, not as a trade, but in its essence, thus making it a branch of the nature study which is now so popular through our entire public school system."

The sense in which agriculture was conceived by the committee referred to is the sense in which Dr. Trelease discussed his subject, and it is in that same sense that the writer has used the word in advocating the introduction of agriculture into our public school work.

Dr. Trelease says further in his paper: "I have looked over the program of this session, and I am deeply interested and have been pleased to note the extent to which agricultural education occupies it, for it does not require any great insight to perceive that agricultural science, to which this society is devoted, cannot be very helpful until its essence shall have been incorporated into agricultural practice—a result only to be reached by agricultural education."

"Whenever else may need to enter into this education, a very direct and practical knowledge of the plants that agriculture concerns itself with, either as its ultimate end or as intermediary steps to that end, is a prime requisite; not a knowledge of the wheat and the tares or of the barren and fertile field only, but a knowledge of why the field is barren and of what it is within the tares that prevented the sowing of their seed from increasing in number and injuring the grain crop; and so whether taught for itself or as a part of agricultural science, botany as it is now taught calls for the garden as an indispensable means to the end sought."

And thus it is that we have urged that what we have called "outdoor textbooks" be attached to every rural school; in other words, a garden that may be cultivated by teacher and pupils as a means of instruction in plant life and growth, and through this imparting to the children a knowledge of the underlying principles of agriculture.

**PHILIPS COUNTY, NEB.**—The outlook now is for one of the largest winter wheat crops Nebraska ever raised. The whole state has had plenty of moisture. Fat cattle and hogs are scarce. Stock cattle are rather thin.  
MARCH 28. **GEO. A. ARNOLD.**  
**FRANKLIN CO., ILL.**—We have a fine prospect for an abundant fruit crop through this part of the state this season. Wheat and timothy look well, but very little oats have been sown yet, owing to too much rain. All kinds of stock have passed the winter in fair condition.  
April 1. **H. H. W.**

### MR. JEWETT CORRECTS MISTAKE.

Two and One-Half Bushels Sorghum Seed Per Acre.  
Editor RURAL WORLD: In my letter which you published March 20, under the head of "Success With Sorghum," I fear you have made me subject to criticism by those who are posted on sorghum culture, and, possibly, to lynching by those who are not, should they follow my directions as printed. You have made me say, either through your mistake or mine, "Sow not less than two and one-half pounds per acre." This would be about one-fifth of the proper amount, and would make about one stalk to sixteen square feet, sixteen to one, you know. I fear the resulting crop would make rather coarse hay. It should have read two and one-half bushels.

I imagine I can see the look of intense disgust on my brother farmer's face when he has achieved the above result, and hear him say, "That comes from follerin' them dern fool fellers that writes for the papers. They don't know straight up now. Good farmers don't have time to write for the papers."

I wonder how much truth there is in that last. After reading some of the impractical things written I have sometimes thought there was, at least, some. However, since I see that so small a mistake as changing bushels to pounds makes so great a difference I don't know but we had better give the writer another chance.

Have been driving hedge posts lately and found a number of otherwise good ones, too crooked to be driven by striking on the top. We overcame the difficulty by placing a strong chain around the post, a large wedge between the post and chain, and then struck on the wedge. It is a success. **P. J. JEWETT.**  
Bates Co., Mo.  
Mr. Jewett's "copy" did read "two and one-half pounds." We noticed it when first going over the article, but failed then to correct, and later overlooked it. The publishers of a leading journal claim that all matter printed in the columns of that publication is read after being received by them and before it appears in print from 15 to 20 times, in an effort to eliminate all mistakes. We are unable to exercise quite as much care on matter that goes into the RURAL WORLD, but it, doubtless, would surprise many to know how many times our "copy" is read by editors and proof readers before it reaches the subscribers; yet mistakes will appear.

### WEEK BY WEEK.

Editor RURAL WORLD: March has been a most miserable month. Slush and mud, rain, sleet and snow. In these latter days, however, spring has been busy underground. The bluegrass has put on an additional tint of green, and the flowers are thrusting their green leaves up to greet the sun.

The birds were slow coming. The first that I heard was the meadow lark. It was after the middle of the month. Then one morning shortly afterwards I heard robins and bluebirds. But the ground was so sodden and it will be some time before oats are sown. I never did like to run in grain. I never thought that anything was gained by it.

Speaking of birds, I am confident they migrate by night. But I am equally confident that they are guided by definite landmarks. The bird and the beast have a wonderful and correct faculty of travel. This person proved it last summer. It was 45 miles of strange road between his home and his charge. In returning from his first visit he let faithful Nell go as she pleased. There were many turns in the road, but she took every one without the person touching the lines. She never hesitated, nor ever made a mistake.

So the birds are guided by forest and stream, by towns and cities, and go directly and surely to their destination. The larger folk walk the foot path to break. I have gone early to my pond to see the guests, and in nearly every instance have been gratified. Such birds as find their food in the mud, as the sandpiper and snipe, are soon satisfied; but ducks, geese and cranes take plenty of time to feed, if not molested. The smaller birds seem to have a sense which distinguishes between food and mud. Ornithology is a delightful study and I have been its devoted votary all my life. There is no more favorable calling for its pursuit than that of the farm.

One of my neighbors is a nurseryman in a small way, but this spring he is shipping in a great deal more than ever. He says that the prospect for sales was never so good. On this new plantation of mine I am going to set out as much fruit as I can afford. It pays not only in making the home table a delight, but it brings in the dollars. It is one way of making dollars grow on bushes and trees. When one goes to town for the mail, or other errand, it is not disgraceful to take baskets of fruit along to pay for a few groceries or other necessities. It isn't a bad feeling which follows the giving of a basket or two to such as are unable to buy. Of a truth one feels a great deal better for it.

Thinking of spring planting, I reached the conclusion some years ago that all the potatoes should be planted as soon after April 15 as possible. The early varieties come into market sooner and, whatever may be said to the contrary, the late

varieties require the entire season to mature. There is a vast difference between a mature potato and one where the jacket will slip.

There is the asparagus bed or row. This is a favorite dish with me. I am as anxious for it as a cow is for young bluegrass. It is healthy to commence with, and the way the matron serves it, it is next to green peas. I wouldn't understand a person who didn't like green peas.

I am much obliged to Mrs. Lyda for the tobacco remedy against the pea and bean weevils. We are going to try it if we can find any "long green" in the neighborhood. It has been years since there has been any tobacco in the house, but for the sake of good peas and beans we will tolerate it for a while.

Radishes and lettuce should be sown as soon as possible. The former are a necessity; the latter for a few messes isn't bad with vinegar and sugar. In short, a good home garden is half the living, and the better half, in its season.

April is the month when I wanted my young calves. I never lost one born in that month, and they all did well without exception. There was never blackleg on the place or hog cholera or plague. What more could a farmer ask? A parson-farmer? And this reminds me: There died recently the Rev. Elijah Kellogg. He was a graduate of Bowdoin College, but was more of a farmer than he was a preacher. He wrote many books for boys, all of which are first rate. His "Good Old Times" series and the "Wolf Den" series in my opinion, are not surpassed in all the literature of the world for boys. I read them myself with great satisfaction, for I am yet a boy though somewhat along in years. Well, from calves to boys is quite a step. I mind well, however, when I was called a "great calf," because I insisted on drinking a pint of milk fresh from the cow at every milking.

A lady in Chicago who read "the parson's" notions of flowers in a little floral magazine sent him the other day a box of a small fat leafed cactus. She wrote that they would do no good for her. The dirt was dry about the roots of the plant and exposed the trouble. There were bunches of the larvae of some insect all through the roots. They were about the size of the larvae in a hill of large ants. I couldn't find the mature insect, but thought it might be some sort of fly. It was no wonder the plants would do no good. There were enough of the white things to ruin five times as many plants. The matron shook the things into the fire and thoroughly washed the roots, and the plants are growing and beginning to look healthy. I wish some of my readers would tell me what the insects were. A little knowledge of entomology wouldn't damage a philosopher. It would seem, studying vegetation, that it would largely benefit a farmer.

It is a pleasure to us western men to know that St. Louis will have a great exposition. Perhaps the person may get to see St. Louis again. The last time that he was there was in 1864 and then merely passed through. St. Louis should omit no opportunity of keeping it before the whole people. Make it the text of a continued preaching. Thorough advertising always pays.

It pays, also, to have one's seed of small grain, and grass seed, perfectly clean. The most of our weed pests have reached us through foul seed. Hence a fanning mill should be on every farm. I have had trouble in this direction. A wagon, in early spring, camped in our truck patch in early spring. Where they fed I found that season sandbars. It took labor and watchfulness to be rid of them. Somebody dropped some seed of the velvet weed, or through the corn to a stock well. It was several years before I was rid of them. At another time I bought a packet of seed of 500 varieties. When they developed there were two abominable pests among them. One was the ox-eyed daisy. It took several years to be rid of it. The other was a genuine Canada thistle. I pulled it up and burned it in the kitchen spit. So I feel justified in saying, see that the seed which you buy is very clean. It will often save worry and labor.

Nor do I believe that it pays to run after new ventures in fodder or grain. Where you can grow timothy and clover to perfection what else do you want? The same of corn; when you can grow good crops of it why run after such stuff as spelt and field peas or soy beans? Clover and timothy make good feed pasture and spelt and the like do not. I have never yet run after these new things, and will show results with any man who has. If there is any more satisfactory prospect for winter than a heavy growth of timothy and medium red clover, it has not fallen under my observation as yet. Nor do I believe that it ever will.

**EDWARD E. HEATON.**  
Warren Co., Ia.

### DRAGGING FOR CORN.

Editor RURAL WORLD: I believe it pays to drag the ground before planting corn. Where we dragged our corn ground last year the out worms did not bother the corn; but where we did not drag the ground the worms destroyed most of the corn. Where we dragged our corn ground last year our corn did fine, but the rest of it wouldn't amount to much, but after three plowings it did fairly well, but was frost bitten a little.  
**McDonough Co., Ill. T. A. MORROW.**

### TEACHERS IN RURAL SCHOOLS.

More Rigorous Law Needed to Govern Their Selection.

Editor RURAL WORLD: In view of the fact that so many teachers in our free schools, more particularly in rural districts, are very negligent or careless in doing their full duty, my indignation has become somewhat roused. I have seen the district in which I have lived for nearly 45 years imposed upon, or defrauded out of the annual funds levied for educational purposes so often, that it seems there should be more stringent laws and regulations governing the issuing of teachers' certificates. The law of Illinois gives to one man for each county the power or individual judgment in placing before, and at our mercy, educators.

It has been said: "Two heads are better than one, if one is a sheep's head." And I believe that in granting to the county school superintendent or any single individual absolute judgment as to whom shall instruct the school populace is wrong, and a hindrance to the intelligence of this age. However, there could be no making such a system of superintendency, additional restrictions in granting unworthy graduates certificates to teach.

In the first place, why not have it obligatory on the part of school boards to furnish a statement, at least once a month, to and for the consideration of county superintendents? These statements or reports to embody any good or bad acts of teacher while on duty, up to the time of making such report. And it should be the duty of the superintendent, when in his judgment any teacher has failed to fulfill his or her trust satisfactorily, to notify him or her of such complaint, and if such unfaithfulness is persisted in, "draw the line" by dismissal.

School boards in rural districts are often composed of members that are timid in making any attempt at forcing teachers to do their sworn duty, from the fact that they are a corporate body and are fearful of being drawn into a suit by a teacher for dismissal. There are other qualifications besides knowledge of books that should be considered by the superintendent before granting certificates to applicants. I can recall the name of a teacher (imaginary) who, after the retirement of school superintendent visiting her school, told her pupils she was glad he was gone. The same, perhaps, could be said of her, as to other visitors—and of unbecoming attendance of pupils. Many teachers are miserable failures as educators, with no purpose in view but the dollars they can make out of it. Double the educational benefits could be had with the present outlay of money for such purposes if a more stringent law were in force in licensing educators, and I believe that if each county had a licensing committee of three or five elective members, to meet once a year and pass judgment on the combined reports from all school boards, there would be a "weeding out" of incompetent and negligent teachers. This committee could easily be composed of material equally as competent and earned as the superintendent, and a better safeguard to public educational interests would be established at a very nominal outlay with such a method in practice.  
**J. E. HAYNES.**  
Monroe Co., Ill.

### THE HIRED MAN.

(Concluded from last week.)

Editor RURAL WORLD: There are more indications for the hired man than there were 40 and 45 years ago. Many of the hired men now are living for the present. They do not look ahead to a day when they will have homes or a farm of their own. There are too many places of amusement in the towns and cities. The saloons and cigar stands are so tempting and the chewing gum so delicious that their hands go into their pockets, and their money goes out. The writer has seen in his employ who cannot work an hour in the day without a quid of tobacco or a cigar in the mouth. The men tell me that for a time smoking and chewing are restful and nerve quieting. There is no doubt in the mind of the writer, but the tobacco habit is wearing men out faster than the labor they do.

The hired men of these days receive more wages than they did in the latter part of the 40s and the 50s. Then from \$11 to \$12 a month was the ruling price for well grown, hardy young men, including board. Many were hired by the year for \$100 to \$125. The higher priced hands saved \$100 a year. In three or four years they were able to buy a small outfit to begin farming, and in a few years more they were owners of farms.

Clothing is cheaper now than it was in those days. A full suit of wool goods cost then from \$14 to \$15. The same can be bought now for \$10 and \$12, and working suits for \$5 and \$6. Why is it that the young, unmarried man cannot save enough in three or four years to begin working for himself? He is paid up more promptly than formerly, in fact many men have their money every Saturday night.

Much of the hired farm labor is now done by married men, who have families. The wages paid for service is usually \$1 a day, with a small house to live in with garden attached, and sometimes a cow to use for milk. It is a rare exception for a man with a family to save enough

money in four years to enable him to farm for himself. Yet the writer has known two or three men who, by close economy, have saved enough to buy a team, two or three cows and some pigs, and thus begin life for themselves. The writer had a German in his employ who has done it. This man has been out of the writer's employ four years, and now has a team, farm utensils, six or seven cows, several hogs and a yard full of poultry. There is no question but in five or six years more he will have a farm of 80 or more acres all paid for. He spent no money for tobacco, though on rare occasions he had a glass of beer.

It is the opinion of the writer that the hired man's chances to own a farm are hardly equal to those of 40 or 50 years ago owing to the high price of land, and the government domain, having in a great measure been used up. Yet there will be less and less opportunity as the years pass by for the young man. So it behooves every hired man on the farm and the factory laborer to get a little home, for the time is not far distant when it will hardly be possible for a farm hand to ever become an owner of a farm and be an independent farmer.  
**UNCLE AMOS.**  
Douglas Co., Kas.

### AN ACKNOWLEDGEMENT.

Editor RURAL WORLD: Having just finished the short course in agriculture at the University of Tennessee, I feel that it would be very selfish indeed if I did not call attention to the great value of the course to the farmer. What one learns about soils and cultivation, together with the best methods of fertilization, is well worth the cost of the entire course. The instruction in the dairy school is comprehensive and covers all the details of that important industry, while the drills on stock judging are of the utmost value to every farmer. The instruction in horticulture and plant diseases is both interesting and useful. In fact, the entire course is crammed full of those things that everyone ought to know and so few know well.

The faculty are all capable and pleasant gentlemen. Prof. Andrew M. Soule is head of the department. He is a most energetic leader and is doing all in his power to make the school here the best in the land. The course for next year will be even better than this one and the delightful stock-judging trip to Baltimore will be repeated. The short course in agriculture at the University of Tennessee is opening golden opportunities to the farmers of the state. The experiment station and agricultural college are worthy of our confidence and support and are doing work in Tennessee of which every farmer should be proud. Make your plans to attend the short course of 1902. It will pay you, brother farmers, and you cannot afford to miss it.  
**GEO. W. MACHLAN.**  
Student, Short Course in Agriculture, University of Tennessee, 1901.  
Knoxville, Tenn.

### AN EX-RENTER'S VIEWS.

Editor RURAL WORLD: You ask the experience of ex-renters. I am glad this subject has been brought out by Mr. Heaton. I can assure you it is very disagreeable to live where about five-sixths of the population are renters. One cannot have church or Sabbath schools, or very poor ones, if any. In the public schools we have the very cheapest teachers and the result is very poor schools and very poor people; at least that is the condition of things here and it grows worse.

I came here 22 years ago with a sorry team, three or four hundred dollars, wife and six children. At that time good land was cheap and rented mostly for one-third of the crop; or some would give one-half of the crop, and furnish the renter with feed, team and tools; others would take ten bushels of corn to the acre or to the lot, but all this is changed. A few get the land yet at one-third, but they have to furnish clover seed, if any is sown, and do considerable repairs. Most of the natives pay the landlord one-half of the wheat, he furnishing the land and seed; others pay two-fifths of the crop as rent.

Some of the conditions would not be so bad, but the land is being bought up very fast by non-resident speculators, some of it by men who know nothing about farming, and they expect the land to produce such crops as it did when new, and this without any clovering. The body of the land is good, but most of it is completely run down.

One man living in central part of this state told me he owned 400 acres in one body about eight miles from here. It is very level land. He is still buying. Another has bought three good farms near by lately and I am told he owns 500 good farms along the Mississippi river between here and Chester. About two years ago another man bought three of the best farms near here, about six or seven hundred acres. (He is an old bachelor, Mr. Heaton.) He paid as high as \$50 per acre for some of it; some of the same land sold for \$21 per acre about 15 years ago.

Now as to whether a man could buy this land at the present price, and pay for it out of the crops raised on it, is a serious question. Of course we have more machinery now and one man can do more work than when the ground was covered with trees and stumps. But the land is badly run down and a great deal of it has

very cheap buildings on it, with very little fencing. Another thing—if there is much demand for any one crop it is not long before the farmers oversupply that crop.

My advice to a man buying on time would be to know what his ground would best produce, then push his business to the limit. If he lives away from a large town, he had better raise corn, clover, hogs and some wheat and rotate his crops. If he lives where there is plenty of range, or grass naturally grows, grow cattle with hogs. We made our success with corn and hogs principally. We bought nearly all our land, 270 acres, on time, paying 12 per cent interest for some of the money, and have paid out, but we got the land cheap.  
**JOHN W. ALTON.**  
Jackson Co., Ill.

### LETTER BOX.

**MONTGOMERY CO., KAN.**—The fruit trees are beginning to bud. I have an apricot tree in full bloom. The prospect for all kinds of fruit is good. Wheat looks fine. Oats are coming up and farmers are talking of planting corn next week.  
March 25. **H. BELLAIRS.**

A BUG CATCHING QUERY.—J. E. May's remarks about putting "bug catchers" on his apple trees has attracted our attention and we kindly ask him to give a description of his bug catcher. Besides satisfying our curiosity, it may prove beneficial to many other RURAL WORLD readers.  
The CHIEF, Ill.

### NOTES FROM THE CLIFF.

Editor RURAL WORLD: We thoroughly endorse the sentiment expressed by our journalistic friend, S. F. Gillespie, relative to district schools. His aptly spoken words should be indelibly stamped upon the minds of all. When the people have fully learned the great lesson that a "good teacher is cheap at any price; an inexperienced and inefficient teacher expensive at the lowest price," they will realize the fact that money expended for cheap teachers is that much wasted revenue, really worse than wasted because it is a robbery perpetrated upon the intelligence of youth; then will come the "good times" in school life, teachers fully imbued with progressive ideas and the talent for imparting knowledge to those they instruct on a plane far above the system now in vogue will be employed at remunerative prices and the "brightness" and facilities for permanent progress in educational lore will be attained.

In this age of invention and machinery for lightening the burden of toil, every facility for quickness in accomplishment and skill in production is being provided and the demand for manual labor is constantly decreasing and becoming largely confined to the drudgery of mental employment. The means for mellowing the mental and physical condition of mankind has also kept pace with the advancement of science until today we find that for comfort and culture are almost boundless and the benefits derived very greatly overshadow the evils said by the pessimists to have been produced. While the few have been relegated to a routine of laborious and daily hardship, the many are placed in a position for an easier mode of obtaining a sustenance, a larger and better enjoyment of life, the mass of the people is becoming more enlightened and the tendency is towards a still greater growth and development. The giant of discovery is but an infant still and has not yet attained to a moiety of its destined growth and greatness. What the attainments of the 20th century are to be is now beyond the power of human conception.

The advent of spring has brought with it the usual routine of work preparatory to active operations towards a crop the ensuing season. On the Cliff farm the boys, Fred and Dick, aged respectively 20 and 17 years, are busily engaged in clearing some new ground, repairing fences, making improvements around the barn and hog lots, setting additional fruit trees and doing some work on the bottom land, thus while we are confined to the interior of our den, there is a cheerful and promising aspect surrounding us. The prospect at this time for a fruit crop is good, but there is yet the chance of a late cold snap and fruit trees are not beyond danger. The small acreage of wheat sown last fall has been killed and that crop is virtually a failure. The repeated failures in that cereal have fully demonstrated the fact that this is no longer a wheat growing country and many farmers have entirely ceased from any attempt at raising it. Plowing for oats will make busy times for awhile and the indications are that a large acreage will be sown. Stock of all kinds is in fair condition, having come through the winter fairly well, notwithstanding the limited supply of provender, caused by the short crop of corn last year. Hay was an abundant crop and has formed the principal food for horses. It is from \$3 to \$10 a ton and is now becoming scarce. Horses, cattle and hogs command fair prices, but are few in number, all the surplus having been disposed of, mostly last fall. The weather has been showery and springlike, at times cool; grass in the meadows and pastures is growing nicely and will soon be utilized for grazing.  
Ephraim Co., Ill. **DYER.**







## Horticulture.

S. H. Linton, late of the firm of Linton & Kaup, nurserymen at Marceline, Mo., has become the manager of D. Evans' commercial fruit farm, Des Moines, Ia. RURAL WORLD readers will be pleased to know that Mr. Linton will continue to contribute to our columns, for he is so well informed regarding all phases of horticulture that articles from his pen cannot fail to be instructive. We shall look for articles of still greater interest from him when he gets well settled in his new work.

### HORTICULTURAL TALKS.

**DAMAGED APPLE TREES.**—A subscriber says that he bought a lot of apple trees that were injured by the severe winter two years ago. Some died; others were living but had dark wood inside; he wishes to know whether they are worth nursing or whether to pull them. This is something new to me, and I can give no other advice than what would be done if the trees were alive: If there is sound wood yet near the ground I would cut them off in the sound wood and let the sprouts grow. Let two or three sprouts grow and about midsummer pinch the weakest at the top leaving the strongest unpinched. Next spring take all off but one. These will make good trees and come into bearing as soon, or sooner, than if new ones were planted, and save the expense of the trees, as well as the planting. I have an acre or two of just such trees and they are doing well. The rabbits barked about 3,000 so that they were not fit to sell, sawed them off at the ground and treated them as above stated.

**THE EQUINOX.**—This 21st day of March is the day the equinox is due, but we have had dashes of the storm several times, and this morning the wind is in another direction with the ground frozen hard. Even if I did caution our readers to go slow in exposing tender plants too soon, I was induced to loosen up the covering of my pet rose, and found it in prime condition. Last night, when it began to get cold, just before retiring, I took a heavy old overcoat and covered this rose bush with it. How many rose bushes have had so much honor bestowed on them?

My Burbank, Red June and Hale plum trees are almost ready to open, and may have been hurt somewhat last night.

**SHORTENING ROOTS.**—Many years ago, when I did not have much experience in planting, I received some grape vines with roots a yard long. They were left whole and spread out. They lived, but made a poor growth. Now I cut all side roots back to about four inches. I am considerably converted to Stringfellow's method. The old notion that the fine fibrous roots should be saved is erroneous. They all die and leave a blank space where the root was. A clear cut on a larger root soon callouses and sends out fresh roots. Fear trees (standards) sometimes have not a fiber to their main roots, yet they grow. I cut but little off the tap root; however, this is the anchor sheet of a tree.

**THE BLOODGOOD PEAR.**—Mr. Henry asks me whether this is a good pear. Yes, to my taste A No. 1, and is among the first to ripen. It is not quite medium in size, bears well, is free from blight as any other. I have a tree yet of a planting of 25 years ago. It is not a good selling pear, as its color is against it, as it has a russet skin. It has an aromatic flavor that is to me very pleasant, and no other pear has it.

**BEURRE BOSCH** is one of the very best pears. The reason it is not found in the catalog is because it is such a poor grower when budded near the ground that nurserymen don't like to grow it. Top grafting is the remedy for this.

Bluffton, Mo. **SAMUEL MILLER.**

### FORMULAS FOR SPRAYING MIXTURES.

Editor RURAL WORLD: Will you please publish the different kinds of spray mixtures and when and how to use them?

Perry Co., Mo. **J. T. HISSLELL.**  
The following formulas for the Bordeaux mixture, which is in general use as a fungicide, are published in Bulletin No. 1 of the Missouri State Fruit Experiment Station by Director J. T. Stinson. The formula usually recommended is as follows: Copper sulphate, 5 pounds; fresh lime, 4 pounds; water, 45 gallons.

The formula used at this station in the experiments for bitter rot is: Copper sulphate, 5 pounds; fresh lime, 5 pounds; water, 50 gallons.

**HOW PREPARED.**—The copper sulphate is dissolved in from five to ten gallons of water or may be dissolved in two or three gallons of hot water. If the copper sulphate is powdered by grinding or otherwise it will dissolve readily in cold water. Add water enough to make 25 gallons and pour into spraying tank. The lime should be carefully slacked. Add enough water to make 25 gallons and pour slowly into the spraying tank. In slacking the lime for the work pour a little water over the lime; watch it closely and add more water in small quantities as needed. Care is taken to add enough to keep the lime from burning, but not enough to drown it. By using care it will be evenly slacked and nearly all of it

can be used in the mixture. A better mixture is made when the copper sulphate and lime are each diluted to 20 to 25 gallons before being mixed. It is also best for the milk of lime to be allowed to cool before it is added. It is advisable to keep the mixture thoroughly stirred while adding the milk of lime. A fine wire strainer should be used to strain it as it goes into the spray tank.

The mixture should be kept thoroughly stirred in the spray tank, either with the agitator attached to the pump or by the use of a paddle. Much depends upon keeping the mixture stirred. Several cases of failure the past season to get results from spraying in orchards visited were found to be due to not keeping the mixture thoroughly stirred in the spray tank. In one orchard the fruit and foliage were damaged on account of the mixture not being kept thoroughly stirred.

Where a large amount of spraying is to be done it is well to prepare the copper sulphate solution and have the lime slacked beforehand. Fifty pounds of the copper sulphate may be dissolved in 50 gallons of water and 50 pounds of lime slacked and enough water added to make 50 gallons, which may be kept in covered barrels until it is desired to be used, when one gallon of each represents one pound each of copper sulphate and lime. Care should be taken that the milk of lime is thoroughly stirred before it is measured. Bordeaux mixture should be applied as soon as it is made; it deteriorates if allowed to stand.

**WHEN TO SPRAY.**—Prof. Stinson says the time to spray depends largely upon the season. The fungus attacks the fruit soon after it is formed, and the mixture which is used as a preventive should be applied early. An application given just before the trees blossom is important, and the second soon after the blossoms fall, not later than a week. The third may be applied from 12 to 20 days after, owing to the weather. If considerable rain falls after the second spraying the third should be given earlier.

**FOR CODLING MOTH.**—The addition of Paris green to the spraying mixture, one pound to 150 gallons of the mixture, lessens the damage done by this insect. It is advisable to add the poison to the mixture for three sprayings given after the blossoms fall, and it is important that an application be made within one week after the blossoms fall.

### ILLINOIS HORTICULTURAL REPORT.

Volume 34 of the Transactions of the Illinois State Horticultural Society for 1900 is being distributed by Secretary L. R. Bryant, Princeton, Ill. The RURAL WORLD is under obligations to the secretary for a copy. It is full of most valuable information. Among the papers published in the report and that can be read with much profit is one by C. H. Williamson, Quincy, Ill., on "How to Pack and Market Apples," in which he gave some commonplace "don'ts" and some commonplaces "dos."

"Origin and Development of the Apple Blossom" is the title of a paper by Prof. E. S. Goff of the Wisconsin Agricultural College. One would think that there was little to be said on that subject that would interest practical (?) fruit growers, but a reading of the paper will reveal to most people that there are many things concerning apple blossoms which it would be well for orchardists to know, but which few do know. Another paper along similar lines is on "Cross Fertilization," by Prof. J. C. Blair of the Illinois Agricultural College, and which it would benefit all plant growers to read. "The Apple Scab Fungus," by Prof. T. J. Burrill; "Spray Material and its Application," by H. H. Aldrich; "Insect Enemies of Tree and Fruit and How to Control Them," by E. E. Green, and "The Crown Gall as a Nursery Pest," by S. A. Forbes, state entomologist, are all exceedingly valuable papers. "Forestry for Illinois" is well handled by Prof. Chas. A. Keffer of the Tennessee Agricultural College. And this is not half of the good things the volume contains. Reports are sent free to all members of the State Horticultural Society, to school and other public libraries in the state, on payment of postage, and 25 copies to each county farmers' institute on application.

Bluffton, Mo. **SAMUEL MILLER.**

### MUCH FROM LITTLE.

Editor RURAL WORLD: Probably no question has a wider or stronger hold on the attention of the farming fraternity than how to make money without money. The man with a surplus invested in young stock—bound to grow every day that it prospers at all—is fortunate. But the renter with little more than a team's force, who raises only corn or its equivalent to haul to market, is running a race for daily bread.

To make I say garden some for the market. Raise enough of some good special crop to market it in good quantity, which will find sale when little dribs of equal quality will not.

For large returns from small cash outlay, tomatoes are marked to excel as a sort of feeding, pickling and handling is where the successful edges come in. Rather heavy soil deeply plowed and fine, dressed with surplus manure on the surface at seed time is best. Where the soil is light and the situation dry, heavy mulch of hay or straw is a success. Heavy mulch of hay or straw is a success. Heavy mulch of hay or straw is a success.

Sedgwick Co., Kan. **G. W. KILLOUGH.**

### A BITTER ROT BULLETIN.

Bulletin No. 1 has been issued by the Missouri Fruit Experiment Station at Mountain Grove, Mo. Director J. T. Stinson entitles the bulletin a Preliminary Report on Bitter Rot or Ripe Rot of Apples. The bulletin is free to all residents of the state and apple growers particularly should send for copies.

We quote from the bulletin as follows: **SPRAYING.**—Practical orchardists are becoming convinced that spraying is a necessary part of the work of raising an apple crop. A fine grade of fruit always commands a good price and it is necessary that the fruit be free from scab and worms to be salable.

It has been demonstrated at the experiment stations and by fruit growers that spraying for codling moth and apple scab will pay. The results from the work carried on here and elsewhere are convincing that it will pay to spray with Bordeaux mixture for bitter rot of apples. To be successful the work should be thoroughly done. Much depends upon the care taken in preparing the mixtures, and the thoroughness with which they are applied.

The lack of success from spraying fruits is generally because the work has not been thoroughly done. The mixtures are put on the trees and fruit to prevent insect injury and injury from fungus diseases, and it is necessary for success that the trees and fruits be covered with the mixtures when the applications are made, and the value of the mixture depends upon its ability to remain on the leaves and fruit even in wet weather. Bordeaux mixture possesses this quality and therefore is the best fungicide to use. Several orchards visited the past season were said to have been sprayed thoughtfully but with no results. Upon close examination none of the mixture could be found upon the leaves or fruit, and the only conclusion is that the work was not properly done.

**APPLE SCAB.**—It is a well known fact that this disease can be controlled by the application of Bordeaux mixture to the trees early in the season. The use of the fungicide has become one of the necessities for successful apple growing. Apple scab injures the appearance of the fruit to such an extent some seasons that but a small part of the crop is marketable, if apples are plentiful. The experimental stage is past as far as this disease is concerned, for it has been demonstrated that it pays to spray to prevent it.

The time to spray depends largely upon the season. The fungus attacks the fruit soon after it is formed and the mixture which is used as a preventive should be applied early. An application given just before the trees blossom is important, and the second soon after the blossoms fall, not later than a week. The third may be applied from 12 to 20 days after, owing to the weather. If considerable rain falls after the second spraying, the third should be given earlier. A fourth spraying may be given to advantage. The number of applications will depend upon the season. From experiments conducted in 1894 we found that two or three sprayings prevented the disease, but that the fruit was larger and the yield was much increased when four sprayings were given.

**SPRAYING DURING BLOOMING.**—It is advisable not to spray fruit trees while in bloom with the arsenical poisons or the fungicide Bordeaux mixture. The advantage in spraying trees at blooming time, as the applications given just before and after blooming time are as effective.

The application of arsenical poisons to the blooming trees is liable to kill the bees that are so necessary to the fruit grower, and it is also an injustice to the neighbor whose bees are killed. The application of Bordeaux mixture to the trees while in bloom injures the blossoms.

Prof. Beach, in giving results of recent experiments, in an address before the Western New York Horticultural Society meeting, says: "In every case where a blossom is fairly hit by the Bordeaux spray it is killed unless the fruit has already set. As the blossoms are in different stages of advancement, some already set, some just opening, etc., the yield of fruit is not diminished by spraying a full blooming tree in any one day. In seasons of scant bloom the practice would be dangerous, as it might kill a large percentage of the blossoms, and thus reduce the yield largely."

**CODLING MOTH.**—The addition of arsenites to the spraying mixture lessens the damage done by the insect. It is advisable to add the poison to the mixture for three sprayings given after the blossoms fall, and it is important that an application be made within one week after the blossoms fall. Prof. Slingerland says: "To use the poison spray the most effectually one must understand that it is necessary to fill the blossom end of each apple with poison within a week after the blossoms fall, for this is where the little worm gets its first few meals, and it is practically our only chance to kill it with a spray. Watch the developing fruit after the petals fall and be sure to apply the poison before the calyx lobes close, for while the falling of the blossoms is the signal to begin spraying, the closing of these calyx lobes a week or two later is a signal to stop spraying." The addition of the poison to the later applications is for the purpose of killing the second brood.

**BITTER ROT** does not make its appearance until late in the season, and later sprayings are necessary. The applications given for apple scab are beneficial in preventing this disease, but will not prevent it unless later sprayings also are given. The mixture should be kept on the fruit throughout the season and the number of sprayings necessary will depend upon the amount of rainfall. An application in June, one in July and one about the first of August, in addition to the early sprayings, will probably be sufficient, and it may be that the July application can be omitted safely if the mixture remains on the fruit.

**PREVENTIVE MEASURES.**—All the withered apples should be picked from the trees and all trash under the trees raked up, removed from the orchard and burned. The spores of the fungus live over the winter in the withered apples. Thorough cultivation of the orchard during the winter season, so that the moisture is kept to the soil for the use of the trees and fruit when it is most needed, during the dry, hot periods of August or early September, is desirable.

The fruit should be carefully thinned if the crop is heavy, so that the trees are not forced to overbear.

**FUNGICIDES.**—Bordeaux mixture has come into general use as a fungicide and answers the purpose better than any other. It adheres to the foliage and remains on the trees and fruit even in wet weather. If it is applied a sufficient time before a rain to allow it to become thoroughly dry.

Mothers will find "Mrs. Winslow's Soothing Syrup" the Best Remedy for Children Teething.



Our books, telling about composition of fertilizers best adapted for all crops, are free to all farmers.  
**GERMAN KALI WORKS,**  
93 Nassau St., New York.

### THE APPLE GROWERS.

The Mississippi Valley Apple Growers' Association held its third annual meeting in the Chamber of Commerce rooms in Quincy, Ill., March 20. The attendance was unusually large.

An interesting feature was made in the display of apples. Some of the apples came from as far away as Kansas City. Mr. B. F. Combs of that place captured two of the prizes. Thirty-four prizes were awarded. The quality of the apples was generally discussed and at the close of the meeting it was ordered that those on exhibition should be sent to the Woodland Orphan Home.

Mr. Henry Clay Cupp of Fall City, Ill., was re-elected president, and James Handy of Quincy was re-elected secretary. Mr. E. N. Black of Clayton was elected vice-president for Adams County.

The association includes eight counties in Illinois, five in Missouri and one in Iowa. The president was authorized to appoint vice-presidents for all counties entitled to representation, with the exception of Adams.

The annual reports submitted showed that the association was in a very strong condition.

### OUR SEEDS AND OUR GARDENS.

Editor RURAL WORLD: There is no good reason why the farmer should not have as good a garden, and as great a variety, as a regular market gardener. The essential point in a garden or truck patch is good seed. What we mean by good seeds are those that have a reliable pedigree and well established character, and are the best of their type and strain.

There is as much difference between an improved strain in the vegetable kingdom and one that has deteriorated till there is scarcely the germ of life left in it, as there is between a scrub and a well bred animal in the animal kingdom.

We notice the twentieth century spirit is animating our farmers and just anything that is new is satisfied with just anything that can be called a bean or a cabbage. They must have seeds that are guaranteed to be the very best of their kind, and of a good strain.

When we find a seedsmen that catalogs his seeds with a guaranty of purity, we feel as though we would make no mistake in ordering such seeds. In our 25 years of planting we have found we find the most practical hints possible in the briefest space, and will enable you to have an up-to-date garden.

Lincoln Co., Mo. **TYMANDA.**

### 1901 SEED CATALOGUE FREE.

**JAMES VICK'S SONS,** Rochester, N. Y.

**A GOOD MOVE.**—When Carl Sonderger, proprietor of the German Nurseries, who has been advertising with us, moved his establishment from Fairbury, Neb., to Beatrice, it was a stroke of good business, if the only advantages secured were better seed and better service. Besides this, however, in planning anew he was able to arrange his grounds, packing houses and store cellars so as to give him the greatest economy in packing and shipping. Mr. Sonderger has the somewhat unusual idea that a new customer, even though he is only a small buyer, deserves just as careful service as the larger buyer. The result of this is that he has a customer of last year is back this season with a larger order. All this is suggested by the fact that the new catalog, which offers vigorous, healthy stock at remarkably low prices. He tells us that he has a very large stock of fruit trees and forest seedlings which are exceptionally vigorous and well rooted. His shipments by express last season were over 40,000 pounds and by freight more than 20 large car loads, the equivalent of a train load. This year past records are being broken. Write today for his catalog. Besides the lines embraced in a modern nursery stock are found many specialties of the highest quality which he offers as premiums. Address German Nurseries, Beatrice, Neb., and mention this paper.

Lincoln Co., Mo. **TYMANDA.**

**POTATOES.**—Large growth in the seed of Seed potatoes, grasses, etc. The new potatoes \$1.50 and up per barrel. Big Farms and Vegetables Catalogue for 5 cents postage.

**PEACH TREES,** Kiefer Pears and Japan Plums. R. S. JOHNSON, Box 19, Stokely, Del.

### Gregory's Seed.

For nearly half a century Gregory's Marbled Seed, on hundreds of thousands of farms, have been a synonym for purity, freedom, and honest dealing. The seed tested the firm still continues to carefully guard their reputation, and is annually selling to tens of thousands of the children the same high quality of seed he sold the fathers. Our new Vegetable and Flower Seed Catalogue now ready—free to everybody. The worthy novelties of the season are honestly described.

J. H. GREGORY & SON, Marblehead, Mass.

### The Apiary.

#### BEST LOCATION FOR BEES.

Most every one has his or her favorite location for the apiary. Some choose the most shaded spot possible. After experimenting for several years we have determined that, in our locality at least, the most exposed place possible is prolific of the best results, writes E. Whitcomb in the "New England Homestead." In the country between the Missouri river and the mountains the nights are usually cool, and we find that the mercury falls two or three degrees lower in the shade than on the open ground, that it requires a much longer time to warm up the hives in the shade in the morning than those not shaded, and, besides this, the sun comes out so warm in the morning that often before the colonies in the shade are warmed up the sun has evaporated a great portion of the nectar. It is with the great portion of the bees, that is, with the one who usually accomplishes the greatest day's work.

In experimenting with this matter of location we find that the colony located nearest the shade gather the least stores, while those located on the most exposed ground gather most. One case in particular was a colony shaded by a small plum

tree. As the tree grew the colony produced less stores, until it barely gathered sufficient to winter itself. We moved this colony out into the sunlight and it went back to its old record in honey making.

We set our hives facing the east, that the sun may shine on the entrance as soon as it peeps up in the morning, and further, that it may shine on the rear late in the evening in order to facilitate evaporation as long as possible. We use a temporary shade made with a few old staves tacked on a 2x2, two feet long, and which protects the top and sides of the hive, allowing a free circulation of air, and the sun to shine on either end as it is reached.

### BEE FEVER.

Editor RURAL WORLD: I believe that as a rule people who make a success of beekeeping have had, at some time in their lives, what I call "bee fever." The conditions that bring on this fever are many and often perhaps unknown, but the effects of the fever are manifested in many ways. This fever afflicts people and not bees.

When 12 years of age I was struck with this malady and its effects are still noticeable. About the first thing one will do when stricken will be to talk a great deal about bees and to purchase a stand or two. As the disease continues he will subscribe for some good bee journal and text book on bee culture. After reading the bee papers the patient will answer some of the many advertisements of the bee supply factories. When he has read the catalogs thoroughly an order will be made for some modern frame hives as well as for some implements to work with.

By this time the patient has sufficiently recovered from his first attack so that he is able to work fairly well with his bees. Indeed, we shall find that he takes more pains (?) with his work than would an experienced apiarist, who understands his business.

This is a peculiar kind of fever, in that it never proves fatal, yet it has its "backsets." Perhaps after the amateur beekeeper has a good start in his business he finds that his locality is not a good one. Again, some sure enough bee disease may come along or some time a winter may come and almost destroy his apiary, much to his sorrow and loss. This might occur after he had reached a stage in beekeeping where he thought he knew it all.

We will not mention any more causes for "backsets," but will consider how he recovers from them. As he advances in bee knowledge and experience he learns of certain forage plants and trees that are good yielders of honey. He plants them along the road sides and waste places of his farm, thereby improving the look as well as the value of his farm. He also learns better methods of wintering and feeding and last but not least, that the secret of success is to have strong colonies at all times of the year. This will prevent moths and diseases from ever doing much damage to the apiary.

Of the many secrets of bee nature, some of them are being made known to him from time to time. After five or six years his business will have increased to such an extent that his apiary will number 40 or 50 stands in frame hives. The value of these will amount to \$120 to \$150, not including the cost of the implements. All of this has sprung from an investment of about \$2. Can you mention anything that will beat it for the amount of money expended?

Now the man's apiary has reached a point where it will be of some financial help to him—in fact it has been from the first year. On an average year the 40 colonies would net at least \$120, not counting the worth of the increase. If the apiarist sees fit and wishes to make the bee business his life's vocation, he may increase the number of colonies until the amount of income he desires is reached.

One man has said that he would rather have the income from 500 stands of bees properly handled than the income from a 160-acre farm. I believe he was about right, for \$90 would be a very low estimate for the income of 500 stands.

Beekeeping is very profitable as a side issue. One can easily correlate the work with other occupations. It goes hand in hand with horticulture and is just the thing for school teachers. Beekeeping is a splendid business for the farmer's boys to take up. They can earn enough money sweeping the school house or in some other way to get a beginner's outfit. After getting started don't fret, and the bees will do their part by you.

Andrew Co., Mo. **AMBROSE L. RILEY.**

### YOUNG'S SEEDS.

Are Pure and Reliable Always Sure to Grow.

Roses, Fruits, Trees, WE HAVE THE BEST.

and cannot be surpassed. Selections of the best.

BEAUTIFUL, ILLUSTRATED CATALOGUE. It contains 100 pages of USEFUL INFORMATION FOR THE GARDEN.

YOUNG'S, 1404 OLIVE ST., ST. LOUIS, MO.

**STRAWBERRY PATCH** for \$2.00. A big four combination offer. 25 cents of following four fine varieties: Strawberry, Star, Waterloo, and Gandy. Sent by mail or express to any part the United States, prepaid. F. B. D. No. 3 Ernest Gautt, Marion, Ind.

**ARTICHOKES.** Prices, with circular how to grow them free. J. E. HAYNES, Ames, Ill.

**Strong Plants of Uncle Sam.** Send and best latest grape, Quaker and other grape vines; also Delaware and Othello vines for sale. JOSEPH HACHMAN, Altus, Ark.

Seed Sweet Potatoes, 12 best kinds, \$2 to \$5 per barrel; plants ready May 10th. \$1.50 to \$2.00 per 1000.

White and Colorado's, Strong 1 year roots \$1.00 per 1000.

Phurba's, Myatt's Linseed \$4.00 per 1000.

F. O. B. Descriptive Price List Free. FRIEDL, LILLIE & CO., Cobden, Ill.

**OTWELL'S TREE PAINT.** Will rid your orchard of Borers and is absolutely guaranteed never to wash off. In use in every state. Write for circular. J. B. Otwell, Patented, Garfield, Ill.

**Fruit and Ornamental TREES.** Grapefruit, Small Fruit, Flowering, etc. Fresh stock. 2000 lbs. Apple 45¢; 100 lbs. Cherry 50¢; 100 lbs. Peach 50¢; 100 lbs. Plum 50¢; 100 lbs. Pear 50¢; 100 lbs. Quince 50¢; 100 lbs. Strawberry 50¢; 100 lbs. Raspberry 50¢; 100 lbs. Blackberry 50¢; 100 lbs. Blueberry 50¢; 100 lbs. Elderberry 50¢; 100 lbs. Huckleberry 50¢; 100 lbs. Juniper 50¢; 100 lbs. Lavender 50¢; 100 lbs. Rose 50¢; 100 lbs. Yew 50¢; 100 lbs. Cedar 50¢; 100 lbs. Fir 50¢; 100 lbs. Spruce 50¢; 100 lbs. Pine 50¢; 100 lbs. Hemlock 50¢; 100 lbs. Larch 50¢; 100 lbs. Tamar 50¢; 100 lbs. Birch 50¢; 100 lbs. Alder 50¢; 100 lbs. Willow 50¢; 100 lbs. Poplar 50¢; 100 lbs. Cottonwood 50¢; 100 lbs. Sycamore 50¢; 100 lbs. Elm 50¢; 100 lbs. Ash 50¢; 100 lbs. Hickory 50¢; 100 lbs. Walnut 50¢; 100 lbs. Chestnut 50¢; 100 lbs. Pecan 50¢; 100 lbs. Sugar Maple 50¢; 100 lbs. Red Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100 lbs. Grey Maple 50¢; 100 lbs. Silver Maple 50¢; 100 lbs. Gold Maple 50¢; 100 lbs. Bronze Maple 50¢; 100 lbs. Purple Maple 50¢; 100 lbs. Pink Maple 50¢; 100 lbs. Blue Maple 50¢; 100 lbs. White Maple 50¢; 100 lbs. Yellow Maple 50¢; 100 lbs. Green Maple 50¢; 100 lbs. Black Maple 50¢; 100



## Live Stock.

April 12—Boone Co. Shorthorn Breeders' Association, Columbia, Mo.  
April 12—N. H. Gentry and J. W. K. King, Shorthorn cattle, Kansas City, Mo.  
April 12 and 13—Two days combination sale; 100 high-class Shorthorns, from herds of J. W. K. King, N. H. Gentry, Gentry Bros. and W. F. Harned.  
April 12—W. S. Rigg, Mt. Sterling, Ill.  
April 12—C. C. Bigler & Son, Hartwick, Iowa.  
April 12—Boone County Shorthorn Breeders' Association, at Columbia, Mo.  
May 1—J. M. Jones & Co., and S. E. Prather & Son, at Springfield, Ill.  
May 1 and 2—C. A. Janssen, Peoria, Ill.; H. Goldman, Wabash, Ind.; and others, at Chicago, Ill.  
March 14—H. M. Gitting, Decatur, Ill.  
March 20—Gardner, Judy, Mattinson and Seely, Kansas City, Mo.  
April 20—Haley Bros., Harris, Mo., and others, at Kansas City, Mo.

Mr. B. O. Cowan of New Point, Mo., has been elected assistant secretary of the American Shorthorn Breeders' Association. We congratulate the association on securing the services of so competent a man. It is our opinion that there are few men in the country who are so well fitted for the duties of the position as is Mr. Cowan. A regrettable result, however, of Mr. Cowan's moving to Springfield, Ill., where are located the offices of the association, will be his retirement from the breeders' ranks and the disposal of his splendid herd of Shorthorns. A sale of the herd will be held in October.

### GRAND PRAIRIE, ARK., NOTES.

EDITOR RURAL WORLD: I feel that I owe an apology, through your columns, to Dr. Conaway of the Missouri experiment station. In a recent communication I stated that I had written to him for instructions as to how to inoculate cattle against Texas fever, but regretted that I had received no answer from him. Since that time I have received quite a lengthy letter from him, in which he describes pretty fully the details of the operation. For all of which I feel under many obligations to him for his kindness.

In a recent issue of the RURAL WORLD Mr. Manning expresses surprise to hear that there have been any cases of Texas fever in this vicinity. It was not my purpose to get up any discussion with the gentleman. But my remarks were intended as a warning to northern people who, having read his first article, might have been induced thereby to bring down cattle to this country. Personally, I know nothing of the conditions that may exist in Woodruff county; but I have lived in an adjoining county, and not so very far away, for over six years, and I know from my own experience and observation that there has been no case of fever near here. I could name dozens of men that have brought down valuable cattle from northern states, and when they have been turned out on the range with native cattle, they almost invariably die. There is no doubt or question about it. Any old settler living on this prairie will tell you the same thing. Experts who have been sent here to examine the cattle have found our stock infested with the true Texas fever tick.

If Mr. Manning has lived in that part of Arkansas for 25 years he ought to be better posted on the geography of our state. He says he would like to know what part of Monroe county is on Grand Prairie? I reply for his benefit that there is but little of it on the prairie. Still there is some, and your humble correspondent has the honor and pleasure of living on that part. If Mr. Manning will take a run on the Grand Prairie, he will find some fine farms stopping at the first station south and west of White river. I will show him one of the prettiest stations on the road, and the most beautiful location for a town in the whole state. In fact, we regard it as the garden spot of the whole country. This little village lies in the edge of Grand Prairie and is in Monroe county.

### EVANS-SNIDER-BUEL SALES AT KANSAS CITY.

During the week beginning March 25 the Kansas City house of the Evans-Snider-Buel Company made sales as follows:

For Herbert Graves, Texas, 46 head-fed steers, average 900 pounds, at \$4.15. This was a splendid price, pleased the shipper and gave evidence of the ability of this concern in serving the best interests of its patrons.

LeForce Bros., Indian Territory, 47 corn-fed steers that weighed 1,014 pounds. Price \$4.40.

For the Stafford Land and Cattle Co., Oklahoma, 99 head-fed steers that averaged 1,040 pounds, at \$4.20.

Another shipment by S. J. Soldani, Oklahoma, comprising 67 corn-fed steers, was good enough to show an average of 1,140 pounds, and Evans-Snider-Buel Co. in Kansas City made them bring \$4.45.

A top notch proposition included a shipment from LeForce Bros., Indian Territory, that sold as follows: Twenty corn-fed steers, average 1,285 pounds, at \$4.75; 19 corn-fed steers, average 1,160 pounds, at \$4.60; one heifer, 1,000 pounds, at \$4.60; one cow, 1,150 pounds, at \$4 per cwt.

Jas. H. Gilliland, Oklahoma, had a consignment consisting of 75 corn-fed steers that averaged 1,261 pounds and brought \$4.60.

Capt. C. W. Burt, Oklahoma, finished up his shipments of full fed cattle by a consignment consisting of 129 steers that averaged 1,063 pounds and brought \$4.15.

Mr. C. H. Bean, Kansas, favored the market with a shipment of 50 steers that averaged 1,128 pounds and brought \$4.55. They were corn-fed.

A sale that is considered the best clearance of Texas meal-fed cattle and which afforded most satisfaction to shippers comprised 206 steers from the Central Texas Cotton Oil Co., averaged 961 pounds and brought \$4.75.

On Haverwood, Indian Territory, 28 head of corn-fed steers in the market, averaging 875 pounds, and which were fat and good enough to bring \$4.85.

The Hogan Mercantile Co., Indian Territory, contributed to the market a very desirable consignment of 100 steers comprising 90 head that averaged 1,261 pounds and brought \$4.55. This was a top notch sale in the quarantine division March 25.

### HEAVY SHEEP LOSSES.

Buenos Ayres, March 28—A bulletin, just issued by the Chamber of Commerce, says that the foot and mouth disease and the inundations have caused more losses to Argentine farmers than has been the general belief. It is estimated that in the last year about 14,000 sheep perished, including almost the whole product of 1900. The loss in wool is estimated at 35,000,000 lbs. Cattle also suffered, but less than sheep.

### CONTINUOUS PURE BRED STOCK SALES.

EDITOR RURAL WORLD: The introduction of the plan at the Union Stock Yards of South Omaha, of holding a continuous blooded live stock sale there is meeting with much approval, not alone among stockmen, but others as well. General Manager W. J. Kerry of the stock yards has had this plan under consideration for some time. The culmination was brought about by the general demand for sales of this character. In the past, on given days, sales of blooded stock have been held at these yards, but often people who desired to make purchases were unable to attend the sales and thus lost an opportunity to get what they wanted. In the future it will be different. No matter what time a buyer goes to the yards, he can be sure of getting what he wants, if the market is supplied, and it is said that there will be no need of complaint in this line.

Only a few years ago the stock raiser of the west thought that all he had to do was to raise a number of cows and calves, lose on his farm, to later be the owner of a marketable product. It is different now, and the shrewd breeder and stock raiser will only buy that which is the best when he is stocking his place. This fact has had much to do with the decision of the stock yards company of South Omaha to arrange for the sale of blooded stock every day in the week when the gates are open for business. Not alone the blooded cattle to be sold on the market, but horses as well. The growth and development of these yards as a horse market has been equally as great as that which affects cattle. Horsemen come here from all over the country to secure fine bred animals for all classes of work. New York, New Orleans, Boston, Philadelphia and other cities keep men here all the time to pick up horses that meet the requirements of the patrons of the companies they represent. It is said that no better horses can be bought anywhere than right here at South Omaha. That the animals which are bred and raised on Nebraska prairies and tributary territory are strong limbed, free from disease, high spirited and reliable—much more so, in fact, than the horses that are generally found in other portions of the country, so it is seen that the possibilities of the South Omaha stock yards are not bound by the business that the great packing houses do, but that they extend to other branches and take in the various kinds of live stock.

Speaking of the establishment of a continuous sale of blooded live stock at these yards Col. J. M. Rhodes of Kentucky said: "Our state has always been proud of her horses and we have a right to be proud, but I believe that there are just as good horses to be had on the South Omaha market as there are on any market in our section of the country. One reason for this, in my opinion, is the number of Kentucky horses and brood mares that have been brought into this portion of the west. We have the blood down there, but Nebraska has the climate that gives the horse necessary vitality."

The management of the stock yards is arranging to still increase the accommodations for the handling of blooded stock, and to come here for a market. The large barns, capable of taking care of hundreds of head of horses, and the sheds and pens where cattle are housed, are being put in the best possible shape. In a word, everything is being done that can be to contribute to the care of the animals and bring the seller and the buyer together with the least possible inconvenience.

### G. C. PORTER.

### OMAHA, NEB.

### STOCK NOTES.

MESSRS. POWELL BROS., the Shorthorn breeders, Lee's Summit, Mo., have issued a very neat catalog of their surplus, which they will be pleased to mail to anyone interested in Shorthorn cattle. Look up their advertisement and write them.

### PINE SHORTHORNS BURN.—The

barn of C. P. Tutt of Bunceton, in which he had the fine Shorthorns comprising the Ashwood herd, was discovered to be on fire Tuesday night about 12 o'clock by a neighbor. By hard work all the cattle were removed except one fine cow and calf. Two other thoroughbred cows were severely burned; one of them valued at \$400, will probably die.—Booneville, Mo., Democrat.

H. A. BARBER, Windsor, Mo., says his crop of young calves is looking fine. Most of the calves are by the coming Cruickshank sire, Orange Duke 34, which Mr. Barber sold to M. R. Amick, Calhoun, Mo. Mr. B. has also sold a Cruickshank heifer to W. F. Harned, Vermont, Mo.

His 2-year-old bull, Young Daisy, is doing well, now that he has become used to the change in climate. He now weighs a little over 2,000 pounds.

COL. R. L. HARRIMAN returned home last Friday from a tour of salesmaking in Kansas. He had three large sales last week. On Tuesday he sold Shorthorns at Holton, Kan.; on Wednesday Aberdeen-Angus cattle at Kansas City, and on Thursday Jacks and horses at Westphalia, Kan. He has a number of sales booked for next month, among the number being a combination Shorthorn sale at Columbia, Mo., on April 18, and on April 22 and 23 the big combination Shorthorn sale of Gentry Bros., W. F. Harned and J. W. K. King at Kansas City.—Bunceton Eagle.

JEFF HUME of Callaway county sold 22 head of mules last week to a party from Canada, says the Mexico "Intelligencer." One pair brought \$700 and the others \$165 each. The big team was 18 hands high and weighed 3,350, was exhibited at the most prominent fairs of this and other states, proving almost invincible. Apropos of this sale a dealer of this city tells a good story on Mr. Hume, who is very original and witty. Both were at the Illinois State Fair at Springfield last year. Mr. Hume with his mules and the dealer with show horses. Mr. Hume had some strong competition in the mule ring and wishing to have an equal advantage, he did not overlook procuring a suitable vehicle to exhibit this team with. Mr. Hume was met by the dealer one morning and was asked where he was going. "To town after one of those 'gun tired' rigs to show my mules to," was the answer as he hurried on.

T. F. B. SOTHAM of the Weavergrace breeding establishment, Chillicothe, Mo., has a letter from Mr. Edward B. Clark, Goleta, Ill., who purchased Improver's Heesed 10787 at Mr. Sothern's sale in Kansas City last January for \$355. He says: "Improver's Heesed fills the bill completely. I think him the best bull in the land, and so does every one else that sees him. I was offered \$700 for him."

Mr. Sothern said at the time his young

bulls were sold for much less money than their real value, and although, as heretofore, the Weavergrace young bulls out-sold those of any other breeding establishment this season, it is quite evident that Mr. Sothern is right, as is proven by this doubling in the value of Improver's Heesed in Mr. Clark's hands. Improver's Heesed is by Corrector out of Peerless 34 by Heesed; granddam by Perty, a son of Horace. This is a line of blood than which there is no better, that insures a good report of him in Mr. Clark's herd.

OTTO H. SWIGART, Champaign, Ill., the proprietor of the Avondale herd of Galloway cattle, places his advertisement in this issue. He has a most excellent herd of this breed of cattle, very uniform in quality, excellent coats of hair and strictly of the Galloway type. He has at the head of his herd two as good bulls of the breed as are living to-day. King Hensel 2967 is a Columbian and state fair winner and senior champion at the International Live Stock Show at Chicago in 1900. Imp. Druid of Castlemilk 17664 (GISE) the champion of Scotland, 1899. This bull will undoubtedly make his mark in this herd as a sire, as he is a grand animal individually and his immediate ancestors are all prize winners in Scotland. Mr. Swigart has a splendid lot of young bulls, principally by King Hensel, and one of his sires, for sale that are worth looking after if you want anything in the Galloway line. He has a very neat catalog that will pay one to send for, as it gives full information regarding this great herd.

### A GREAT SHORTHORN SALE.

One of the attractions of the year to Shorthorn breeders ought to be the combination sale at Kansas City, Mo., April 22-23, when will be sold 119 head of straight Scotch and Bates, some Scotch topped Bates, and a good sprinkling of Booth blood. The consignors are J. W. K. King, Marshall; Gentry Bros., Sedalia; John Morris, Chillicothe; W. F. Harned, Vermont; Arthur Wallace, Bunceton; N. H. Gentry, Sedalia; Col. W. R. Nelson, Kansas City, and Capt. C. E. Leonard, Bell Air, all of whom are well known to the breeders of the country. Col. W. A. Harris, Linwood, and Col. W. A. Harris, Columbus, Kas. From the reputation of the herds that will be represented in the sale and from the personal knowledge we have of them we can assure our readers that the offering will be the largest and the most valuable of the most excellent animals in each consignment and the best are not confined to any particular line. Only one who had a chance to buy animals good enough to go in any herd in America. Send to Mr. J. W. K. King, Marshall, Mo., for catalogs at once and note the breeding of this offering. Then arrange to attend the sale.

### ST. LOUIS NATIONAL STOCK YARDS.

Market Report furnished by Evans-Snider-Buel Company.

Receipts during March were 47,223 cattle, 127,150 hogs and 34,425 sheep. Compared with last March, cattle decreased 6,375, hogs increased 25,500, sheep 660. Receipts during March 31 were 14,416 cattle, 51,111 hogs and 6,135 sheep, against 9,435 cattle, 43,247 hogs and 4,681 sheep the previous month. The market was quiet, with corresponding week year cattle increased 200, hogs 16,200, sheep 300. Receipts at the four principal markets this week were 114,300 cattle, 295,000 hogs and 125,500 sheep, against 101,200 cattle, 250,500 hogs and 115,000 sheep the previous week. As compared with the week ending March 10, 1900, cattle, 22,400 hogs, 108,000 sheep. Receipts in the native division were very light, and prices of most of the world's supply of 85 acres and employing 9,000 people. They are equipped with modern automatic machines, many of which perform the labor of from five to fifteen hands.

This company is also the largest manufacturer of binder twine in the world, having been first to produce single strand binder twine, such as is in general use to-day, and making it in the most economical manner of the entire world. The output of its factory for a single day would tie a band around the earth at the equator, with several inches to spare. The company's production would fill a freight train 20 miles long. Made into a mat two feet wide, it would reach from the American continent from ocean to ocean.

Deering machines are known as Light Draft twine, coming of binders, corn harvesters, reapers, corn harvesters, shredders and rakes.

The Deering automobile exhibited at the Paris Exposition an automobile mower, which attracted much attention, and exhibitions were given with one of these machines in the vicinity of Paris throughout the season.

### THE COWAN - RANKIN - HAGGARD SALE.

The Cowan-Rankin-Haggard combination Shorthorn sale at Kansas City on March 25 was well attended. The cattle were of good quality and the sale was a success. Following is a list of buyers and prices:

1—C. W. Donahay, Newton, Ia.	450
2—B. J. Bapst, Dover, Kan.	450
3—C. D. Bapst, Dover, Kan.	450
4—C. D. Bapst, Dover, Kan.	450
5—G. W. Johnson, Lexington, Mo.	600
6—E. S. Donahay	525
7—C. B. Brown, Kansas City, Mo.	500
8—T. P. Babst	350
9—C. D. Bapst	350
10—C. D. Bapst	350
11—S. S. Shelly, Westport, Mo.	190
12—G. T. Johnson, Willis, Kas.	205
13—J. C. Leary, Salt Lake, Utah	145
14—W. J. Ewing, Saxton, Mo.	165
15—J. C. Leary	125
16—C. D. Bapst	125
17—E. K. Christenson	200
18—W. Hanna, Emporia, Kas.	130
19—Capt. W. S. Tough, Kansas City, Mo.	255
20—C. D. Bapst	600
21—C. D. Bapst	200
22—C. D. Bapst	200
23—Henry Ferguson, Bradwell, Mo.	250
24—E. R. Thompson & Son, Dover, Kas.	100
25—J. J. Bapst	145
26—Capt. W. S. Tough	300
27—W. R. Nelson, Kansas City, Mo.	405
28—W. J. Ewing, Saxton, Mo.	145
29—Capt. W. S. Tough	170
30—Capt. W. S. Tough	150
31—J. G. Breckman, Great Bend, Kas.	105
32—State Cattle Co., Ames, Neb.	105
33—L. Wolf, Kansas City, Mo.	80
34—J. C. Hall, Hallsville, Mo.	800
35—L. Wolf	80
36—J. G. Breckman	125
37—Capt. Davis, Denver, Col.	125
38—J. C. Leary	80
39—Capt. Davis	80
40—Smith Bros., Carthage, Mo.	150
41—Henry Ferguson, Bradwell, Kas.	145
42—C. D. Bapst	125
43—H. O. Wyman, Bureka, Kas.	115
44—E. S. Shelly	150
45—Capt. W. S. Tough	145
46—Capt. W. S. Tough	145
47—N. G. Gallagher, Highland, Kas.	100
48—Capt. W. S. Tough	185
49—Fort-nine head brought \$1,100, an average of \$220.	

During the week Texas and Indian Territory steers, 68 to 1,267 pounds average, sold at \$4.40 to \$4.75, with the bulk at \$4.60 to \$4.65; cows at \$4.20 to \$4.30, with the bulk at \$4.30 to \$4.35; steers and oxen at \$3.90 to \$4.10, bulls at \$3.70 to \$3.85, and calves 50 to 500 lbs. at \$3.50 to \$3.75. Arkansas steers, 805 pounds average, sold at \$3.85 and bulls and oxen at \$3.75 and Louisiana and Mississippi steers, 735 to 980 pounds average, sold at \$3.75 to \$3.85 and oxen at \$3.50.

HOES. The run for the week has been a slight fluctuation during the week and prices are practically the same as the close of last week. Receipts this week included a few grass steers, which averaged 900 lbs. and sold \$4.00. The quality of the fed cattle is not as good as it was a few weeks ago.

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As compared with last week's closing prices. All offerings sold readily at following prices: 2-year-old steers \$5.00 to \$5.10, best lambs \$5.50 to \$5.75, spring lambs \$7.00 to \$8.50, best bucks \$2.50 to \$4.25. Monday, April 1—Receipts were very light in the native division, and prices were about the same as the close of last week. Chicago received 22,000 cattle and the market steady to 10c lower. There were about 100 cars in the quarantine division to-day and prices are practically the same as last week.

HOES—With light run Monday and favorable advices from other points, the market was 5c to 10c higher on best and about steady on pigs and lights.

SHEEP—Receipts light, market strong at last week's closing prices.

### DEERING AT PARIS IN 1900.

The Famous Chicago Harvester Company Received More and Greater Honors at the Paris Exposition than any other American Exhibitor in the History of Expositions.

America may well feel proud of the invention which her citizens took to the Paris Exposition and the elaborate exhibits which were prepared with consummate skill and in a manner not yet equalled by any other country. These harvesting machines in particular were of great interest to the visitors of the Exposition, and the Deering Harvester Company of Chicago, America's foremost manufacturer of this kind of goods, was accorded the position of honor, having been selected by the advance of the art of harvesting than any other manufacturer, living or dead, and having been awarded the most important inventions to its credit than any other company in the world.

Visitors to the exposition were prompt to accord the Deering exhibits supreme honors, and it only remained for official mandate to ratify the popular verdict, which was done in a manner as substantial as it was merited. Each one of the Deering exhibits secured the highest award in its class.

In addition to four high decorations, the Deering Harvester Company received 23 awards of 23 in all, as follows: Decoration of Officer of the Legion of Honor, Decoration of Chevalier of the Legion of Honor, two Decorations of Officer of the Legion of Honor, a special Certificate of Honor, the Grand Prix, six gold medals, six silver medals and eleven bronze medals, including Deering Collaborator Medals. The Decoration of the Legion of Honor was conferred in recognition of distinguished service to the Exposition, and the highest distinction in the gift of the French republic.

The Decoration of Merite Agricole is an honor of but slightly less importance, which is conferred upon those who have contributed greatly to the advancement of agriculture.

An Official Certificate of Honor was accorded the Deering retrospective exhibit, which showed the improvements in harvesting machinery during the past century, and excited the highest praise of the French government officials who had entrusted to the Deering Harvester Company the preparation of this most important exhibit. By special request this exhibit has been presented to the National Museum of Arts and Sciences at Paris, where it has become a permanent feature of that world-famous institution.

The Deering twine exhibit and corn harvester exhibit, both of which received the highest awards, have by request of the French government been presented to the National Agricultural College of France.

There was no field trial, either official or otherwise, in connection with the Paris Exposition, but the most important foreign test of the season was held under the auspices of the Russian Expert Commission at the government farm of Tokmok, Siberia, August 14 to 15. All the leading American and European machines participated and were subjected to the most difficult tests by the government agriculturalists.

The expert commission awarded the Deering Harvester Company the grand silver medal of the Minister of Agriculture and Domain, which was the highest award.

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